



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/533,046	02/28/2006	Klaus Tank	930092-2011	6029
7590 Ronald R Santucci Frommer Lawrence & Haug 745 Fifth Avenue New York, NY 10151		EXAMINER ANDREWS, DAVID L		
		ART UNIT 3672		
		PAPER NUMBER		
		MAIL DATE 08/14/2008		
		DELIVERY MODE PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/533,046

Applicant(s)

TANK ET AL.

Examiner

David Andrews

Art Unit

3672

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,9 and 11-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

The amendment filed 6/2/2008 has been entered.

Response to Arguments

Applicant's arguments filed 6/2/2008 have been fully considered but they are not persuasive. Applicant's arguments against the protective layer (30) of Scott are moot since the rejection below relies on figure 10 to demonstrate the protective layer. Applicant does argue that the arrangement of figure 10 does not show a protective layer and that the shoulder is not a "segment" as recited in claim 1. However, the shoulder region (26, 28) is considered a protective layer and a segment, since it does "protect" the inner diamond layer from milling against the casing (col. 5, lines 15-23) and a segment is can be defined as "any of the parts of which something can be divided", as previously indicated in the Office action of 2/1/2008.

Applicant also argues against the combination of Scott in view of Matthias by arguing that the materials of Matthias are unsuitable for milling ferrous substances. However, also as previously indicated in the Office action of 2/1/2008, the material limitations are not claimed and therefore not material to the rejection. Further, it is only the design of alternating layers, not the material choice, which is taken as the teaching from Matthias and which is combined with the protective layer of Scott. Since Scott teaches use of the different materials for the purpose as claimed, the use of the alternating design of Matthias is considered a choice one of ordinary skill in the art may employ since the design is known in the art and one of ordinary skill would have a

reasonable expectation of success with its usage. It should also be noted Matthias is deemed a relevant teaching with Scott, since the alternating layers of Matthias are taught as having varied wear resistances where the wearing of one layer exposes another (paragraphs 135-138).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Scott et al. (US 5,979,571). Scott et al. disclose a tool insert comprising: a substrate (22; fig 10); a layer of ultra-hard abrasive material (24) having a top and side surface and a primary cutting edge; a protective layer (portions of 22 above lower edge of 24, including 26 and 28) to protect the cutting edge and providing a secondary cutting edge (fig 11) with a depth selected to be sufficient to protect the primary cutting edge whilst cutting a window through a first substance but to expose the primary cutting edge upon encountering a second substance (col. 2, lines 26-39); wherein the protective layer forms a segment which is bonded to the substrate adjacent the layer of ultra-hard material (figs 9 and 10; layer 22 as seen in fig 9 is considered a "segment"); wherein the segment is integrally formed with the substrate and is formed of the same material as the substrate adjacent the layer of ultra hard abrasive material (fig 10); wherein the

substrate is tungsten carbide (col. 2, lines 45-49); and wherein the first substance is casing and the second is bedrock (col. 2, lines 27-45). Scott et al. also disclose a method of drilling an angled hole comprising the steps in claims 12-13 (col. 2, lines 23+).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. (US 5,979,571) in view of Mattias et al. (US 2002/0074168). Scott et al. disclose a tool insert comprising: a layer of ultra-hard abrasive material (24) bonded to a (fig 10); having a top and side surface and a primary cutting edge; a protective layer (portions of 22 above lower edge of 24, including 26 and 28, figure 10) formed of the same type of material as the substrate or another suitable material (col. 2, lines 42-49) to protect the cutting edge and providing a secondary cutting edge (26) with a depth selected to be sufficient to protect the primary cutting edge whilst cutting a window through a first substance but to expose the primary cutting edge upon encountering a second substance (col. 2, lines 26-39); wherein the first substance is casing and the second is bedrock (col. 2, lines 27-45). Scott et al. also disclose a method of drilling an angled hole comprising the steps in claims 12 and 13 (col. 2, lines 23+). Scott et al. does not

disclose a plurality of alternating strips of ultra-hard material and protective layers. Mattias et al. disclose an insert with a plurality of ultra-hard material strips (figure 27A; 80) and protective layer strips (82) on the substrate, the successive strips providing a series of primary cutting edges and a series of secondary cutting edges (figure 27B). It would have been obvious to one of ordinary skill in the art at the time of invention to modify the concentric circle pattern of Scott et al. to the alternating strip pattern of Mattias et al. since Mattias et al. demonstrates these as known alternatives (figure 26 vs 27) for similar purposes (paragraphs 135-138) which would provide predictable results to one of ordinary skill (see MPEP 2141 III).

Conclusion

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 3672

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

/David J. Bagnell/

Supervisory Patent Examiner, Art Unit 3672

DLA

811/08